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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/772,436

02/06/2004

Koichi Shibata

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EXAMINER

MILIA, MARK R

ART UNIT

PAPER NUMBER

2625

NOTIFICATION DATE

DELIVERY MODE

12/22/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No. 10/772,436	Applicant(s) SHIBATA ET AL.	
	Examiner Mark R. Milia	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 10/1/08 and has been entered and made of record. Currently, claims 1-19 are pending.

Response to Arguments

2. Applicant's arguments filed 10/1/08 have been fully considered but they are not persuasive.

Applicant asserts that Mihira (US 2004/0070782) fails to disclose that the second control program is configured to pass the received processing request to the first control program. The examiner respectfully disagrees as Mihira does disclose such a feature. Particularly, with reference to Fig. 1, Mihira shows program layer **9**, any module **31-35** representing a first control program with associated API **53**, application layer **5** contains applications **21-24**, any of which can represent an application program, and applications **25-26**, any of which can represent a second control program with associated API **51**. Mihira states that program layer **9** receives processing requests from application layer **5**, which is received through API **53** and program layer **9** also receives processing requests that originate from an external source and is received by applications **25** or **26** via WSF **27** and API **51**. Utilizing API **52** SF **28** receives the processing request from

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WSF **27** and sends the request to program layer **9**. Thus, the second control program is configured to pass the received processing request to the first control program.

Therefore, the rejection of claims 1-17 is maintained. Newly added claims 18 and 19 will be addressed in the following rejection.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-19 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent Application Publication No. 2004/0070782 to Mihira.

Claims 1, 7, 13, and 18 set forth three different hierarchical architectures for the hardware resource, a first control program, a second control program, and an application program. However, Mihira discloses only one hierarchical architecture but Mihira does state that variations and modifications can be made without departing from the scope of the invention (paragraph 212) and it is common in the art to rearrange processing parts without changing the overall function of the system. This is the case with the instant invention in that Mihira discloses a hierarchical architecture that serves the same purpose and functions the same as the hierarchical architectures of claims 1, 7, and 13.

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Regarding claim 1, Mihira discloses an image processing apparatus comprising: a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit (see Fig. 1 and paragraph 58), a first control program (see Fig. 1 and paragraph 63-64, control service layer **9**), a second control program (see Fig. 1 and paragraph 61-62, applications **25-27**), and an application program (see Fig. 1 and paragraph 60, applications **21-24**), wherein the hardware resource and the programs are arranged in such a hierarchical architecture that the first control program is superordinate to the hardware resource, and the application program and the second control program are superordinate to the first control program (see Fig. 1), the first control program includes a first API (application program interface) for receiving a first request relating to image processing from the second control program and a second request relating to image processing from the application program, and controls, on receiving either of the first and second requests, the hardware resource to perform image processing based on the received request (see paragraphs 59-63, 65, and 71), and the second control program includes a second API for receiving, with use of a function publicly released in advance, a third request relating to image processing from an external source, converts the received third request to a command supported by the first API, and passes the command as the first request to the first control program (see paragraphs 60-61, 66-67, 85, and 89-91, the API is publicly released because a network apparatus, such as a host computer receives a list of stored documents and can transmit XML data using a SOAP protocol to perform printing of a stored document).

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Regarding claim 7, Mihira discloses an image processing apparatus comprising: a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit (see Fig. 1 and paragraph 58), a first control program (see Fig. 1 and paragraph 63-64, control service layer **9**), a second control program (see Fig. 1 and paragraph 61-62, applications **25-27**), and an application program (see Fig. 1 and paragraph 60, applications **21-24**), wherein the hardware resource and the programs are arranged in a hierarchical architecture in the stated order (see Fig. 1), the first control program includes a first API for receiving a first request relating to image processing from the second control program, and controls the hardware resource to perform image processing based on the received first request (see paragraphs 59-63, 65, and 71), and the second control program includes a second API for receiving, with use of a function publicly released in advance, a second request relating to image processing from an external source and a third request relating to image processing from the application program, converts, on receiving either of the second and third requests, the received request to a command supported by the first API, and passes the command as the first request to the first control program (see paragraphs 60-61, 66-67, 85, and 89-91, the API is publicly released because a network apparatus, such as a host computer receives a list of stored documents and can transmit XML data using a SOAP protocol to perform printing of a stored document).

Regarding claim 13, Mihira discloses an image processing apparatus comprising: a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit (see Fig. 1 and paragraph 58), a first control program (see Fig. 1 and

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paragraph 59), a second control program (see Fig. 1 and paragraph 61), and Fig. 1 and paragraph 63-64, control service layer **9**), a second control program (see Fig. 1 and paragraph 61-62, applications **25-27**), and an application program (see Fig. 1 and paragraph 60, applications **21-24**), wherein the first control program is arranged between the hardware resource and the application program and the second control program is arranged superordinate to the application program in a hierarchical architecture (see Fig. 1), the first control program includes a first API for receiving a first request relating to image processing from the second control program and a second request relating to image processing from the application program, and controls, on receiving either of the first and second requests, the hardware resource to perform image processing based on the received request (see paragraphs 59-63, 65, and 71), the second control program includes a second API for receiving, with use of a function publicly released in advance, a third request relating to image processing from an external source, converts the received third request to a command supported by the first API, and passes the command to an appropriate one of the first control program and the application program depending on the requested processing, the command passed to the first control program serving as the first request (see paragraphs 60-61, 66-67, 85, and 89-91, the API is publicly released because a network apparatus, such as a host computer receives a list of stored documents and can transmit XML data using a SOAP protocol to perform printing of a stored document), and on receiving the command from the second control program, the application program passes to the first control program, a request for performing the processing based on the received command, the request

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passed to the first control program serving as the second request (see paragraphs 58-63, 65-67, 71, 85, and 89-91).

Regarding claim 18, Mihira discloses an image processing apparatus comprising: a hardware resource that includes at least one of an image forming unit, a read unit, and a display unit (see Fig. 1 and paragraph 58), a first control program (see Fig. 1 and paragraph 63-64, control service layer **9**), a second control program (see Fig. 1 and paragraph 61-62, applications **25-27**), and one or more application programs (see Fig. 1 and paragraph 60, applications **21-24**), wherein the hardware resource and the programs are arranged in such a hierarchical architecture that the first control program is superordinate to the hardware resource, and the application program and the second control program are superordinate to the first control program (see Fig. 1), the first control program includes a first API (application program interface) for receiving a first request relating to image processing from the second control program and a second request relating to image processing from the one or more application programs, and controls, on receiving either of the first and second requests, the hardware resource to perform image processing based on the received request (see paragraphs 59-63, 65, and 71), and the second control program includes a second API for receiving, with use of a function publicly released in advance, a third request relating to image processing from an external source, converts the received third request to a command supported by the first API, and passes the command as the first request to the first control program, wherein the publicly released function is not supported by any of the one or more application programs (see paragraphs 60-61, 66-67, 85, and 89-91, the API is

publicly released because a network apparatus, such as a host computer receives a list of stored documents and can transmit XML data using a SOAP protocol to perform printing of a stored document).

Regarding claim 2, Mihira further discloses wherein the first control program passes the received first request to the application program if the first request is directed to the application program (see paragraphs 58-60 and 63).

Regarding claims 3 and 14, Mihira further discloses wherein the third request is data expressed in an XML (see paragraph 90).

Regarding claims 4, 10, and 15, Mihira further discloses wherein the second control program further includes: a first converting unit for extracting predetermined information from the received XML data (see paragraphs 66-67 and 90) and a second converting unit for converting the extracted information to the command supported by the first API (see paragraphs 97-99 and 102-103).

Regarding claims 5, 11, and 16, Mihira further discloses wherein the hardware resource includes the image forming unit (see Fig. 1 **11**), the requests relate to execution of a print job (see paragraphs 89-90), and on receiving a request relating to execution of the print job, the first control program controls the image forming unit to perform the print job (see paragraphs 97-99 and 102-103).

Regarding claims 6, 12, and 17, Mihira further discloses wherein the hardware resource includes the read unit (see Fig. 1 **12**), the requests relate to execution of a scan job, and on receiving a request relating to execution of the scan job, the first

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control program controls the read unit to perform the scan job (see paragraphs 58-60, 63, 65, 69, 71, and 80).

Regarding claim 8, Mihira further discloses wherein the second control program passes the received second request to the application program if the second request is directed to the application program (see paragraphs 58-60 and 63).

Regarding claim 9, Mihira further discloses wherein the second request is data expressed in an XML (see paragraph 90).

Regarding claim 19, Mihira further discloses wherein the second API is an external API for controlling operations of the hardware resource according to requests received from an external device (see paragraphs 62 and 89-90).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571)272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached at (571) 272-7437. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark R. Milia
Examiner
Art Unit 2625

/Mark R. Milia/
Examiner, Art Unit 2625

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625

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